ADD BEAR RUN UNIT
25 APRIL 1957
1270 acres

THE BEAR RUN UNIT, BOISE BASIN EXPERIMENTAL FOREST

Introduction

The Boise Basin Experimental Forest as established in 1933 consisted of 5,291 acres in the drainages of Bannock and Pine Creeks. A description of this initial tract is contained in a report entitled: "1933 Atlas Report." In June 1943, another area, consisting of 900 acres of second-growth ponderosa pine forest land, was added to the original tract. Its complete description, likewise, is on file on atlas-size sheets. This second tract, commonly referred to as the "headquarters tract," was selected because of its valuable second-growth stands, an age class not found on the original experimental forest.

An unfortunate fire swept through the headquarters tract in 1945 destroying nearly all of the timber and rendering the area useless for the type of research intended. It has, therefore, become necessary to set aside another area of similar timber type as a replacement for the area lost to fire.

The present report describes the Bear Run Unit which is to be an addition to the established Boise Basin Experimental Forest.

Because of the similarity of this unit and the old headquarters tract at the time it was added to the forest, much of the description need not be repeated. Timber types, past history, age classes, and soils and topography are very similar to those of the headquarters unit before the 1945 fire.

I. The Relation of the Area to the Research Work of the Region And Its Needs in Connection Therewith

Studies in the management of mature and overmature stands of ponderosa pine are underway on the Bannock-Creek-Pine Creek unit of the Boise Basin Experimental Forest. The importance of this portion of the Experimental Forest and the research conducted on it are discussed in detail in the 1933 Atlas Report. As in 1933, the Boise Basin Experimental Forest is still the only area within the Intermountain Region where research on ponderosa pine management is being conducted.

The Bear Run Unit will be important to a well-rounded research program in ponderosa pine management because of the fine second-growth stands it supports. These stands are typical of a large acreage of second-growth ponderosa pine in the Boise Basin and elsewhere in south-central Idaho where early cutting removed the virgin timber. They are also typical of many more acres of young timber which will in the future replace the present mature and overmature stands as they are harvested. Studies are urgently needed in young ponderosa pine to determine the effects of various timber stand improvement practices and stocking rates on growth and yield. The forest industries of this region will eventually be dependent upon these young stands for forest products, and information on their management will be urgently needed.

II. Description of the Area

The Bear Run Unit, an area of 1,270 acres lying mostly in the Bear Run drainage which is a tributary of Mores Creek, is described as follows:

E 1/2, SW 1/4; Lots 3 and 4; Sec. 7, T6N, R6E, Boise Meridian

W 1/2, E 1/2; E 1/2, W 1/2; Lots 1, 2, 3, and 4, Sec. 18, T6N, R6E, Boise Meridian

W 1/2, E 1/2; E 1/2, W 1/2; Lots 1, 2, 3, and 4, Sec. 19, T6N, R6E, Boise Meridian

E 1/2, E 1/2; Sec. 13, T6N, R5E, Boise Meridian

E 1/2, E 1/2; SW 1/4, SE 1/4; SE 1/4, SW 1/4; Sec. 24, T6N, R5E, Boise Meridian

The Bear Run Unit lies northeast of Idaho City, the nearest point being only a mile from town or a mile and one-half from the headquarters of the Boise Basin Experimental Forest. It is easily accessible by an unimproved road. The ownership is entirely Federal, being wholly within the boundary of the Boise National Forest. Private land borders this tract on the east and north, State land on the northwest, private on the southwest, and additional Forest Service land on the south.

III. Acreage by Dominant Cover Types

Only one timber type is present, it being pure ponderosa pine. A negligible amount of aspen is found along drainages. A few open areas consisting of brush or grass are present as a result of rather recent fires or early land clearing. Approximately 30 acres are open, and the entire remaining acreage is in the ponderosa pine type.

IV. Physical and Climatic Conditions

(a) Elevation

The elevation ranges from 4,000 feet near the valley floor of lower Bear Run Creek to about 5,000 feet on the north end of the unit.

(b) Topography

The topography is generally rolling to moderately steep. None of the area, however, is inaccessible to modern logging equipment, or noncommercial due to topography. Bear Run Creek, an intermittent stream, runs through the western half of the Bear Run Unit from north to south. In places, some flat meadow land lies adjacent to this drainage, the largest area of which is about 30 acres. Most of the Bear Run Unit lies within the Bear Run drainage and its minor tributaries. A small section in the northwest corner drains into Elk Creek; another portion of the tract in the southeast corner drains into Thomas and Walla Walla Gulches, tributaries of Mores Creek.

(c) Soils

The soils are sands and coarse to fine sandy loams typical of much of south-central Idaho. These soils are derived from granite, and because of their erosive nature, are in many places deficient in humus and organic matter and have ill-defined profiles.

(d) Climate

The average annual precipitation at Idaho City is about 22 inches, the bulk of which comes in the form of snow during the winter months.

The mean annual temperature is 45.5° F., while temperatures as high as 108° and as low as -40° have been recorded. The average frost-free period is June 12 to September 8, a total of 88 days. There are occasional frosts in July and August.

V. Forest Value

(a) Silvicultural Types

Only the ponderosa pine type is to be found on this unit. It is essentially pure, with a very small amount of Douglas-fir on north slopes and a negligible amount of aspen in draw bottoms.

These generally well-stocked stands of ponderosa pine originated following heavy cutting and probably burning beginning in the 1860's. A few relics of the original stand remain in places, and occasional stands and scattered trees are older than 90 years, because they were present as advance growth in the old virgin stand. In general, however, this unit contains an excellent, uniform stand of second-growth pine of an even-aged character, ranging in age by groups from 40 to 90 years. Stocking conditions vary, of course, from dense to open stands as ponderosa pine naturally grows.

Site quality is predominently IV, with considerable III on north and east slopes and some V and VI on south slopes.

The few openings that are sufficiently large to require reforestation, consist of about 30 acres of brush in the northeast corner of the Bear Run Unit where the Elk Creek fire of 1934 burned, and an area of similar size along the bottom of Bear Run Creek where early land clearing removed the timber. Ceanothus velutinus is the most common brush species present on the area and it is confined to openings. Very little brush is present as an understory in the pine stands.

(b) Amount and Class of Timber Types

There is little commercial timber on the area, in the usual sense, except in a few scattered older trees that are remnants of the virgin stand. The second growth stands, however, contain considerable volume in trees of small sawlog size that should be partially removed in an intermediate harvest cut, in the form of improvement cutting and thinning. No data are available on the volume that is present in this age class.

(c) Merchantability

The volume of timber referred to above is merchantable at the present time. Lumber grade recovery, of course, would be rather low because of the small size and limby nature of the trees. Considerable additional volume of smaller products such as pulpwood, posts, and fuel wood should be removed in stand improvement cutting on this unit. At the present time, no market exists for this size material. For experimental purposes, however, much of it should be cut despite the absence of markets.

The general vigor and health of the ponderosa pine stands on these units are good. The usual endemic population of Ips and Dendroctonus bark beetles is present, but no severe loss has been experienced. Rots are not a factor in such young stands, and the needle cast disease (Elytroderma deformans) is not severe in the Bear Run Unit.

(d) Value of Timber as Protection to Watershed

This tract is a valuable watershed, being on the Boise River system where important water storage and irrigation installations are in use. The topography is not steep, however, and forest management activities on the tracts will not jeopardize watershed values.

(e) Distribution, Extent, and Character of Reproduction

Presence of reproduction in these second-growth ponderosa pine stands is not an important factor. However, the few openings on the unit are reproducing very slowly because of the brush or grass competition and the absence of an adequate seed source. In places, a satisfactory young stand is showing up in the Ceanothus brush, but as a general rule, a regeneration problem exists on these brush areas.

(f) Extent and Severity of Fire Damage

As indicated above, about 30 acres of open area on the Bear Run Unit is a result of the 1934 Elk Creek burn. Otherwise, the tract has been fire-free since the inception of the present timber stand.

(g) Suitability of the Area for Practical Forest Management

The Bear Run area is well suited as a small management unit. It has sufficient timber of small sawlog size to permit the start of intermediate harvest cutting and gradually to follow through on a program of harvest cutting, regeneration, and final regulated management. The size of the unit was chosen with such a plan in view. Until such time as the entire tract can be treated as a management unit, however, the nature of the stocking is ideal for small plot studies and demonstrations of stand improvement practices.

(h) Character and Extent of Present Uses of Timber

Setting this area aside for an experimental forest will in no way conflict with any existing use. A portion of the Bear Run Unit had been used in the 1930's by an old-time "squatter" for fuel wood cutting, but in recent years no use has been made of the timber resource by anyone. Experimental cuttings will produce more saleable products in the form of small sawlogs, posts, and fuel wood than normally would be possible under regular Forest Service administration.

VI. Agricultural Value

There are no agricultural values on this tract because of the rolling topography, coarse soils, deficient moisture, and short growing

season. An early attempt to clear and farm a small area on Bear Run Creek ended in failure.

VII. Grazing Value

The grazing value of the Bear Run Unit is very low. Where the timber stand is dense, very little surface vegetation exists. Where the stand is more open, a scant cover of grass and brushy species is present, but the carrying capacity is very low. Considerable cheat grass on portions of the tract indicate over use in the past. Other areas support pine grass, a species of low palatability.

The present grazing use consists of limited sheep grazing, mostly enroute to and from higher range. Establishing the Bear Run Unit as an addition to the experimental forest will necessitate eliminating all grazing use. It is not believed that this will impose any hardships on present forest permittees.

VIII. Mineral Value

Several old placer claims have been located along the main drainage of Bear Run Creek. No active mining has been carried on, however, and the prospects for mineral value are very remote. The present claims, if maintained, would not interfere unduly with management of the tract, since they include only a narrow strip along the creek where ponderosa pine stocking is poor. It is believed, however, that under the present mining laws, the claims will not remain valid. Once the tract is set aside as an experimental forest, all future mineral entry should be prohibited.

IX. Value of Area for Other Public Uses

No other potential public uses are apparent. The area has no possibilities for hydroelectric power development or for an irrigation reservoir. It has very little attraction for public camping or recreation because of the lack of water.

X. Transportation Facilities

The Bear Run Unit is readily accessible from the town of Idaho City by an unimproved dirt road. This road passes through the entire tract in a north-south direction and is passable during good weather. It should be improved before the unit is placed under intensive management. Road chances in other parts of the unit are favorable, there being several old, abandoned roads from early logging days that could be improved at a reasonable cost.

XI. Public Sentiment

The addition of the Bear Run Unit to the Boise Basin Experimental Forest should meet with the approval of the local public. Previous additions have not been resisted, and the work of the Experimental Forest has been favorably accepted by local citizens. Since the Bear Run tract will be taken from existing Forest Service lands, no reduction in the tax base will result.

XII. Protection

The ranger at Idaho City handles fire protection of this tract as a part of his regular district. The Station has a memorandum of understanding with the Boise National Forest regarding fire protection and the use of Experiment Station personnel on fires.

The Bear Run Unit contains no special hazard areas, there being no slash on the ground and very little surface brush. It is, however, typical of much of the ponderosa pine type throughout the Boise Basin where fire hazards are very high during the dry periods of July, August, and September.

XIII. Improvement Possibilities

The headquarters of the Boise Basin Experimental Forest will adequately serve this Bear Run addition without further expansion. Its location is ideal from this standpoint. No other improvements are needed in the immediate future except roads which have been previously discussed.

XIV. Relation of Area to the Future Use of the Resources of Adjacent National Forest Land

The administration of the Bear Run Unit as a part of the Experimental Forest should in no way conflict with the use of adjacent National Forest lands. The unit is a portion of a small, somewhat isolated tract bordered by state and private land on three sides. The experimental timber cutting activity in these second-growth stands will not interfere with any management plans for the district as a whole, because of their limited extent.

Grazing restrictions which might be imposed will not be of serious consequence, because, as stated above, the grazing values are very slight.

Once the Bear Run Unit has been added to the experimental forest, the use of the tract for experimental purposes should, of course, govern in case of any conflicting interests but none can be forseen at this time.

Prepared 2/8/57 by Reed Bailey, Director Intermountain Forest and Range Experiment Station.

Approved 2-21-57 C. J. Olson, Regional Forester, R-4

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By virtue of the authority vested in me by Regulation U-4 of the Regulations of the Secretary of Agriculture, relating to the occupancy, use, protection, and administration of the national forests, I do hereby designate as the Bear Run Unit of the Boise Basin Exp. Forest the lands described in the foregoing report dated 2/8/57 by Reed W. Bailey, Director, Intermountain Forest and Range Experiment Station; and said lands shall hereafter be administered as an experimental watershed, subject to the conditions and requirements in said report and the provisions of said regulation and in the instructions thereunder.

L. F. Kirby
Acting Chief, Forest Service

4/25/57
Date